COMPLETE LIST OF ALL OF THE CLAIMS

1-2. (canceled)

3. (withdrawn):

4-5. (canceled)

6. (new) A method for objective measurement of video quality using a wavelet transform, comprising the steps of:

(a) producing source video wavelet coefficients for each frame of a source video sequence by applying a 2-dimensional wavelet transform to each frame of said source video sequence;

(b) producing processed video wavelet coefficients for each frame of a processed video sequence by applying a 2-dimensional wavelet transform to each frame of said processed video sequence;

(c) computing a difference vector for each frame, whose element represents a subband difference, which is obtained by summing squared errors between said processed video wavelet coefficients and said source video wavelet coefficients in said subband block, thereby producing a sequence of difference vectors;

(d) producing a final difference vector by averaging said sequence of difference vectors; and

(e) producing an objective video score by taking an inner product of said final difference vector and a weight vector.

7. (new) A method for objective measurement of video quality using a modified 3-dimensional wavelet transform, comprising the steps of:

(a) producing source video wavelet coefficients for each frame of a source video sequence by applying a 2-dimensional wavelet transform to each frame of said source video sequence;

(b) producing processed video wavelet coefficients for each frame of a processed video sequence by applying a 2-dimensional wavelet transform to each frame of said processed video sequence;

(c) computing a difference vector for each frame, whose element represents a subband difference, which is obtained by summing squared errors between said processed video wavelet coefficients and said source video wavelet coefficients in said subband block, thereby producing a sequence of difference vectors;

(d) producing a second sequence of difference vectors by applying a 1-dimensional wavelet transform to said sequence of difference vectors in the temporal direction;

(d) producing a final difference vector by averaging said second sequence of difference vectors; and

(e) producing an objective video score by taking the inner product of said final difference vector and a weight vector.

8. (new) A method for objective measurement of video quality using spatial and temporal frequency differences, comprising the steps of:

(a) computing spatial and temporal frequency differences between a source video sequence and a processed video sequence, thereby producing a spatial and temporal frequency difference vector for said source video sequence and said processed video sequence; and

(b) producing an objective video score by taking the inner product of said spatial and temporal frequency difference vector and a weight vector.

9. (new) The method in accordance with claim 4 wherein the step (a) is performed by applying a transform to said source video sequence and said processed video sequence in the spatial and temporal directions.